

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: FLF-540(26) Baldwin/Washington **OFFICE:** Engineering Services
FLF-540(29) Washington
EDS-0000-00(346) Baldwin/Wilkinson
FLF-540(22) Wilkinson
HPPN-FLF-540(19) Wilkinson

P.I. Nos. 222280, 222285, 0000346, 262470, & 221870
S.R. 24 Reconstruction

DATE: June 28, 2006

FROM: Brian K. Summers, PE, State Project Review Engineer *REW*

TO: Babs Abubakari, PE, State Consultant Design and Program Delivery Engineer
Brent Story, PE, State Road and Airport Design Engineer

**SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY
ALTERNATIVES**

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
FALL LINE FREEWAY – HPP-FLF-540(19) WILKINSON				
1	Use Vertical Abutments and MSE Walls at Little Commerce Creek and Georgia Central Railroad bridges	\$241,740	No	The Design Office has determined that the quantities of the MSE Walls required and the bridge quantities for the VE Alternate were incorrect thus decreasing the amount of savings shown. Re-design costs could equal or exceed this savings.
2	Use a Fabric Reinforced Embankment at the Private Pond Impact	-\$91,861 (Cost Increase)	No	The Design Office stated that since the VE Study has been held the profile grade has been lowered in this area, thus minimizing the impacts to the lake.

FLF-540(26), FLF-540(29), EDS-0000-00(346), FLF-540(22), & HPPN-FLF-540(19)
Wilkinson/Baldwin/Washington
Implementation of Value Engineering Study Alternatives
Page 2.

ALT #	Description	Potential Savings/LCC	Implement	Comments
FALL LINE FREEWAY – HPP-FLF-540(19) WILKINSON				
3	Combine the S.R. 243/CR 183 Intersections into one intersection.	\$367,702	No	The alignment as set has been through the public involvement process. Any re-design work at this stage could delay the project's schedule and would require additional re-design costs and would require extensive coordination with the affected property owners.
FALL LINE FREEWAY – FLF-540(22) WILKINSON				
1	Retain the existing bridge and build only one bridge at Lake Tchuklaho without a turn lane.	\$1,058,695	No	This would require a Hydraulic Study since it would no longer be a bridge widening scenario. This could delay the project's schedule and would require additional re-design costs.
2	Use Vertical Abutments and MSE Walls at CR 21/Southern Railroad bridges	\$233,204	No	The Design Office has determined that the bridge lengths were short by approximately 12'. This would reduce some of the savings. Also, re-designing the bridge could delay the project's schedule and would require additional re-design costs.
3-1	Replace the interchange with an at-grade intersection	\$2,475,661	No	A decision to use a grade separation was already made due to safety concerns. Also, re-designing the interchange could delay the project's schedule and would require additional re-design costs.
3-2	Re-design the ramps at the U.S. 441 interchange	\$100,863	No	Would require additional Environmental Studies. Also, re-designing the interchange could delay the project's schedule and would require additional re-design costs.

FLF-540(26), FLF-540(29), EDS-0000-00(346), FLF-540(22), & HPPN-FLF-540(19)
Wilkinson/Baldwin/Washington
Implementation of Value Engineering Study Alternatives
Page 3.

ALT #	Description	Potential Savings/LCC	Implement	Comments
FALL LINE FREEWAY – EDS-0000-00(346) Baldwin/Wilkinson				
1	Use Vertical Abutments and MSE Walls at U.S. 441 Interchange bridges	\$108,036	No	Re-designing the bridge could delay the project's schedule and would require additional re-design costs.
2	Use a bottomless culvert at Reedy Branch bridges	\$2,009,891	No	An Environmental Commitment has already been agreed to that requires a bridge be constructed at this site.
3	Use pre-cast segmental structure for the Oconee River bridges	\$1,807,555	No	The Design Office has determined (through the Bridge Office) that the unit cost the VE Team used for the Segmental Box Girder bridge is too low. Also, re-designing the bridge could delay the project's schedule and would require additional re-design costs.
4	Use a "Con-Span" culvert at the Buck Creek Bridge Culverts	\$731,074	No	An Environmental Commitment has already been agreed to that requires a bridge be constructed at this site.
FALL LINE FREEWAY – FLF-540(26) Baldwin/Washington				
1	Match the existing bridge length at Gumm Creek Bridges	\$398,963	No	Re-designing the bridge could delay the project's schedule and would require additional re-design costs. There are concerns that the bridge embankment would be more prone to erosion.
2	Shorten the bridges to avoid the existing bridge at Bluff Creek	\$302,379	No	The Design Office stated that the 4.07 m offset distance would allow the right bridge to be constructed in Stage 1. The travel lane widths could also be reduced temporarily during staging. Also, re-designing the bridge could delay the project's schedule and would require additional re-design costs.

FLF-540(26), FLF-540(29), EDS-0000-00(346), FLF-540(22), & HPPN-FLF-540(19)
Wilkinson/Baldwin/Washington
Implementation of Value Engineering Study Alternatives
Page 4.

ALT #	Description	Potential Savings/LCC	Implement	Comments
FALL LINE FREEWAY – FLF-540(26) Baldwin/Washington				
3	Change the 12.5 mm Superpave Asphalt to 9.5 mm Superpave Asphalt	\$220,610	No	The decision has been made by OMR to use 12.5 mm Superpave Asphalt on this project.
FALL LINE FREEWAY – FLF-540(29) Washington				
1	Extend and realign Brooks Road/CR 6 to connect to the Old S.R. 24 alignment and cul-de-sac both ends of old S.R. 24	\$42,526	No	Re-designing the tie-in could delay the project's schedule and would require additional re-design costs. There would be additional Right of Way and Earthwork costs for the new connector.
2	Change the 12.5 mm Superpave Asphalt to 9.5 mm Superpave Asphalt	\$77,930	No	The decision has been made by OMR to use 12.5 mm Superpave Asphalt on this project.

A meeting was held on June 23, 2006 to discuss the above recommendations. Andy Casey and Matt Sanders of Road Design, Vinesha Pegram and Rick Reasons of Consultant Design and Brian Summers and Ron Wishon of Engineering Services were in attendance. Additional correspondence was provide after this meeting.

The results above reflect the consensus of those in attendance and those who provided input.

Approved:  Date: 6/29/06
David E. Studstill, Jr., P. E., Chief Engineer

BKS/REW
 Attachments

c: Gus Shanine
 Rusty Merritt, Jimmy Smith, Kraig Collins, Chris Holmes
 Richard Marshall
 Veronica Davis
 Bill Ingalsbe, Bill Duval, Joe King
 Stanley Hill, Rick Reasons
 Andy Casey, Matt Sanders
 Lisa Myers